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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION"

GOOGLE LLC,

Plaintiff and Counter-defendant,

v.

SONOS, INC.,

Defendant and Counter-claimant.

Case No. 3:20-cv-06754-WHA
Related to Case No. 3:21-cv-07559-WHA

**REBUTTAL EXPERT REPORT OF
DR. KEVIN C. ALMEROOTH**

1 supported by my discussions with Nick Millington, Sonos's director of software development in
2 2005, who confirmed that Sonos's multi-room audio system as it existed in 2005-06 did not
3 incorporate the "zone scene" technology that is described and claimed in the Asserted Claims of
4 the '966 Patent.

5 488. In the sub-sections below, I have provided a summary of the bases for my opinions,
6 as well as responses to Dr. Schonfeld's opinions.

7 **1. Asserted Claim 1 is Not Rendered Obvious Based on Sonos's 2005**
8 **System**

9 489. For the reasons discussed below, in my opinion, Asserted Claim 1 of the '966 Patent
10 is not rendered obvious by Sonos's 2005 system in view of the general knowledge of a POSITA,
11 the Sonos Forums, Nourse, Millington, or any of the other secondary references identified by Dr.
12 Schonfeld.

13 **i. Sonos's 2005 System Did Not Have "Zone Scenes" Functionality**

14 490. Asserted Claim 1 of the '966 Patent requires a "computing device" that is
15 programmed with certain functional capability for creating and invoking a "zone scene," which is
16 a user-customized, pre-saved group of "zone players" that is able to exist in an inactive state while
17 remaining available for selection by a user so that the group can be invoked later on demand for
18 synchronous playback. And more specifically, Asserted Claim 1 of the '966 Patent requires a
19 "computing device" that is programmed with functional capability for creating multiple "zone
20 scenes" having an overlapping "zone player" and then later invoking one of the "zone scenes."

21 491. As explained above, there are several key distinctions between a "zone scene" and
22 the types of temporary, ad-hoc groups that could be created by a user in prior art systems such as
23 Sonos's 2005 system.

24 492. First, a "zone scene" comprises a user-customized, pre-saved group of zone players
25 that is able to exist in an inactive state while remaining available for selection by a user so that the
26 group can be invoked later on demand for synchronous playback, whereas an ad-hoc group created
27 using prior art grouping processes only existed for the limited period of time during which the
28 group was activated and did not remain available for selection by a user after being deactivated.

1 493. Second, because a “zone scene” is able to exist in an inactive state, this provides a
2 user with the ability to create a “zone scene” that includes a “zone player” but then still use that
3 “zone player” for individual audio playback (or for playback as part of a different group) without
4 having to remove the “zone player” from the “zone scene.” In other words, the existence of a
5 “zone scene” comprising a user-customized, pre-saved group of “zone players” does not
6 automatically restrict the functionality of those “zone players” such that they can only be used for
7 grouped audio playback as part of that one particular group during the time that they are members
8 of the group – instead, each such “zone player” can still be used for individual playback (or
9 playback as part of some other group) while simultaneously remaining a member of the group that
10 is predefined and pre-saved as part of the “zone scene.” In contrast, when a user created a new ad-
11 hoc group of “zone players” using prior art grouping processes, the user was no longer able to use
12 any such “zone player” for individual audio playback (or for playback as part of a different group)
13 while the ad-hoc group was in existence because the ad-hoc group would be automatically
14 activated for the entirety of its existence, and during that time, the functionality of the “zone
15 players” in the ad-hoc group was restricted such that they could only be used for grouped audio
16 playback. As such, once an ad-hoc group was created that included a “zone player” as a member,
17 the only way to use that “zone player” for individual audio playback (or for playback as part of a
18 different group) was to remove the “zone player” from the ad-hoc group, which would destroy the
19 ad-hoc group such that it could not be selected again in the future.

20 494. Third, because a “zone scene” is able to exist in an inactive state, this allows a “zone
21 player” to simultaneously be a member of multiple different user-customized, pre-saved groups
22 that were in existence and available for selection by a user contemporaneously. For instance, a
23 first “zone player” could simultaneously be a member of a first user-customized group that is
24 predefined and pre-saved as part of a first “zone scene,” a second user-customized group that is
25 predefined and pre-saved as part of a second “zone scene,” and so on, and then at any given time,
26 a user can request that any given one of these co-existing, pre-saved groups be invoked on demand
27 for synchronous playback (while the other unselected group(s) remain in existence). In contrast,
28 a “zone player” was only capable of being of a member of one single ad-hoc group at any given

1 time, because a zone player's membership within one ad-hoc group was mutually exclusive to its
2 ability to operate as a member of another ad-hoc group (or to play back audio on its own). Thus,
3 once a "zone player" was a member of a first ad-hoc group, the only way that a user could create
4 a second ad-hoc group that included the "zone player" as a member was by first removing the
5 "zone player" from the first ad-hoc group (and thereby destroying the first ad-hoc group) – it was
6 not possible for a "zone player" to be a member of multiple different ad-hoc groups that were in
7 existence and available for selection by a user contemporaneously.

8 495. Fourth, the user-customized groups that are predefined and pre-saved as part of the
9 "zone scenes" are persistent, which means that not only are they able to exist prior to being
10 activated, but they also remain in existence after a user chooses to uninvoke a previously-invoked
11 "zone scene" and thereby deactivate the group. In contrast, an ad-hoc group was temporary – it
12 only exists during the limited time that the group was activated for playback, and once a user
13 decided to deactivate the ad-hoc group, it was destroyed such that the user could not re-use the ad-
14 hoc group in the future.

15 496. Because of these distinctions, the claimed technology for creating and invoking
16 "zone scenes" provided users with a new way to group "zone players" together for synchronous
17 playback in a networked multi-zone audio system, which was intended to improve upon certain
18 drawbacks with both the existing process for grouping players in "conventional multi-zone audio
19 systems" as well the existing process for grouping "zone players" together for synchronous
20 playback that was being practiced by Sonos's own commercial system at the time of the invention
21 of the '966 Patent in 2005. *See* '966 Patent at 1:30-2:24, 8:30-45. Indeed, as the Court recognized
22 in its Order re Cross Motions for Partial Summary Judgment as to Claim 1 of the '885 Patent,
23 "[t]he claimed ability to customize and save overlapping speaker groups and easily control group
24 playback represents a clear technological improvement over the 'conventional multi-zone audio
25 system,' which, as the specification explained, presents significant technological and physical
26 obstacles to forming speaker groups." D.I. 309 12; *see also id.* at 3-5, 8, 13, 16.

27 497. Turning to Sonos's system as it existed in 2005, the evidence I have reviewed
28 establishes that the controller(s) (e.g., a Sonos CR100) in Sonos's 2005 system did not have *any*

functional capability for creating or invoking a “zone scene” – let alone the required functional capability to cause the creation of two different, overlapping “zone scenes” that are both available for selection by a user and then later cause a selected one of the two different “zone scenes” to be invoked, as required by Asserted Claim 1 of the ’966 Patent.

498. As an initial matter, the Sonos UI Specification for “Zone Scenes” establishes that Sonos controllers in Sonos’s 2005 system did not have any functional capability for creating or invoking a “zone scene.” In particular, that Sonos UI Specification, which was created on December 20, 2005 and modified on December 21, 2005, includes the following “Introduction” section:

1 Introduction

The Zone Scene feature allows the user to arrange the zones into groups using one single command. This is similar to the current Party Mode setting that is available. However, the Zone Scene feature is much more flexible and powerful.

Currently in the Sonos UI, zone groups are created by manually linking zones one at a time until the desired zone grouping is reached.

For Example

Start with **Living Room**

- Link the Kitchen to the Living Room to make a group of **(Living Room + Kitchen)**
- Then link the Den to the **(Living Room + Kitchen)** to make a group of **(Living Room + Kitchen + Den)**

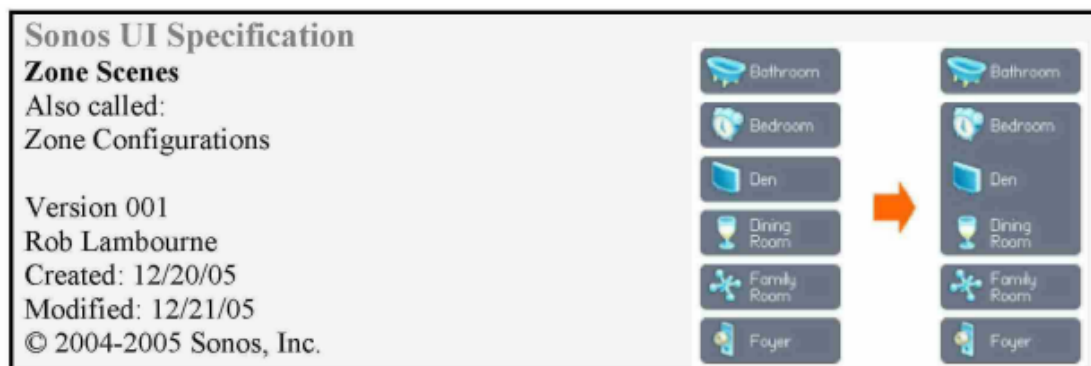
The Zone Scene feature would allow the user to create a group of **(Living Room + Kitchen + Den)** with one command.

SONOS-SVG2-00026839-58 at SONOS-SVG2-00026840; *see also* ‘407 Provisional, at App’x A, 1 (attaching another version of the Sonos UI Specification for “Zone Scenes”).

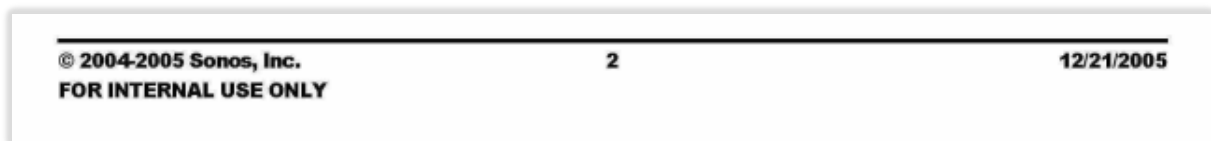
499. This “Introduction” section of Sonos’s UI specification for “Zone Scenes” confirms that the “current[.]” mechanism for grouping ZonePlayers in Sonos’s system in December 2005 was an ad-hoc grouping approach whereby “zone groups [were] created by manually linking zones one at a time until the desired zone grouping is reached.” *Id.* In turn, the Sonos UI specification for “Zone Scenes” goes on to introduce and describe the “zone scenes” technology that is described and claimed in the ’966 Patent as a new feature that would provide an alternative to the “current”

ad-hoc grouping approach being practiced by Sonos's system at the time. *Id.* (also noting that "the Zone Scene feature is much more flexible and powerful" than the "current Party Mode setting that is available"); *see also* '966 Patent at 8:30-61 (explaining that the "*current* mechanism" for "joining" zone players together for music playback" was an ad-hoc grouping process whereby a user "must start with a single zone and then manually link each zone to that zone" at the time the user wishes to use the group for synchronous audio playback, and then introducing and describing the "zone scenes" technology as a new feature that would provide an alternative to this "current mechanism" for grouping).

500. Several other objective aspects of this UI specification document confirm that Sonos's 2005 system did not have the features discussed in the UI specification and that this was a proposal for a feature addition to Sonos's 2005 system as it existed in December 2005. First, the document bears a version number ("Version 001"), which is something generally found on draft documents that change over time as features are modified:



501. Second, the footer bears the legend "FOR INTERNAL USE ONLY," which further confirms that this was a working draft of a confidential feature that was still under development and not yet released:



502. This document alone definitively establishes that Sonos controllers in Sonos's 2005 system did not have any functional capability for creating or invoking a "zone scene."

503. The “Sonos Digital Music System User Guide” dated April 2005 (“Sonos 2005 User Guide”) also establishes that Sonos controllers in Sonos’s 2005 system did not have any functional capability for creating or invoking a “zone scene.” For instance, in the chapter on the Sonos “Desktop Controller Software” for Windows, the Sonos 2005 User Guide includes a section entitled “Zone groups” where it describes the grouping capabilities of Sonos’s 2005 system that existed at the time. That “Zone groups” section begins by explaining as follows:

A zone can be grouped together with any other zone(s) to form a zone group. This will cause all the zones in the zone group to play the same music. You can link or drop zones from a zone group while the music is playing. You can also link all the ZonePlayers in your house with one touch by selecting **All Zones-Party Mode**.

Sonos 2005 User Guide (Lambourne Dep. Exs. 1077-1078), at 3-11; *see also id.* at 5-8. To provide some additional context for this passage, my understanding is that Sonos’s 2005 system used “zones” as a way to logically identify ZonePlayers in Sonos’s 2005 system in a more user-friendly manner. In this respect, my understanding is that each ZonePlayer in Sonos’s 2005 system would have been identified in terms of a respective “zone,” which typically would have been a descriptor of a room or other area within a user’s listening environment. Thus, my understanding is that the discussion of grouping “zones” in the foregoing passage is a reference to grouping ZonePlayers in Sonos’s 2005 system. My understanding set forth above is based on my review of various evidence related to Sonos’s 2005 system as well as my discussion with Mr. Millington, and is further confirmed by the portion of the foregoing passage stating that “You can link all the **ZonePlayers** in your house with one touch by selecting **All Zone-Play Mode**.” *Id.* (emphasis added); 7/19/2022 Discussion with Mr. Millington.

504. In turn, the “Zone groups” section describes the process for creating a “zone group” as follows:

To link a zone to a zone group

You can create a zone group first and then select music to play, or you can add a zone to a zone group where music is already playing.



Note: Any zones you link will automatically drop their current music queue and begin to play the music queue from the highlighted zone. You may sometimes want to save your music queue before linking a zone. See “To create a Sonos playlist” on page 3-17.

1. From the **Zones** pane, highlight the zone you want to link another zone or zone group to.
2. Choose one of the following options:
 - Click **Link Zone**.

Or,

- From the **Zones** menu, click **Link Zone**.



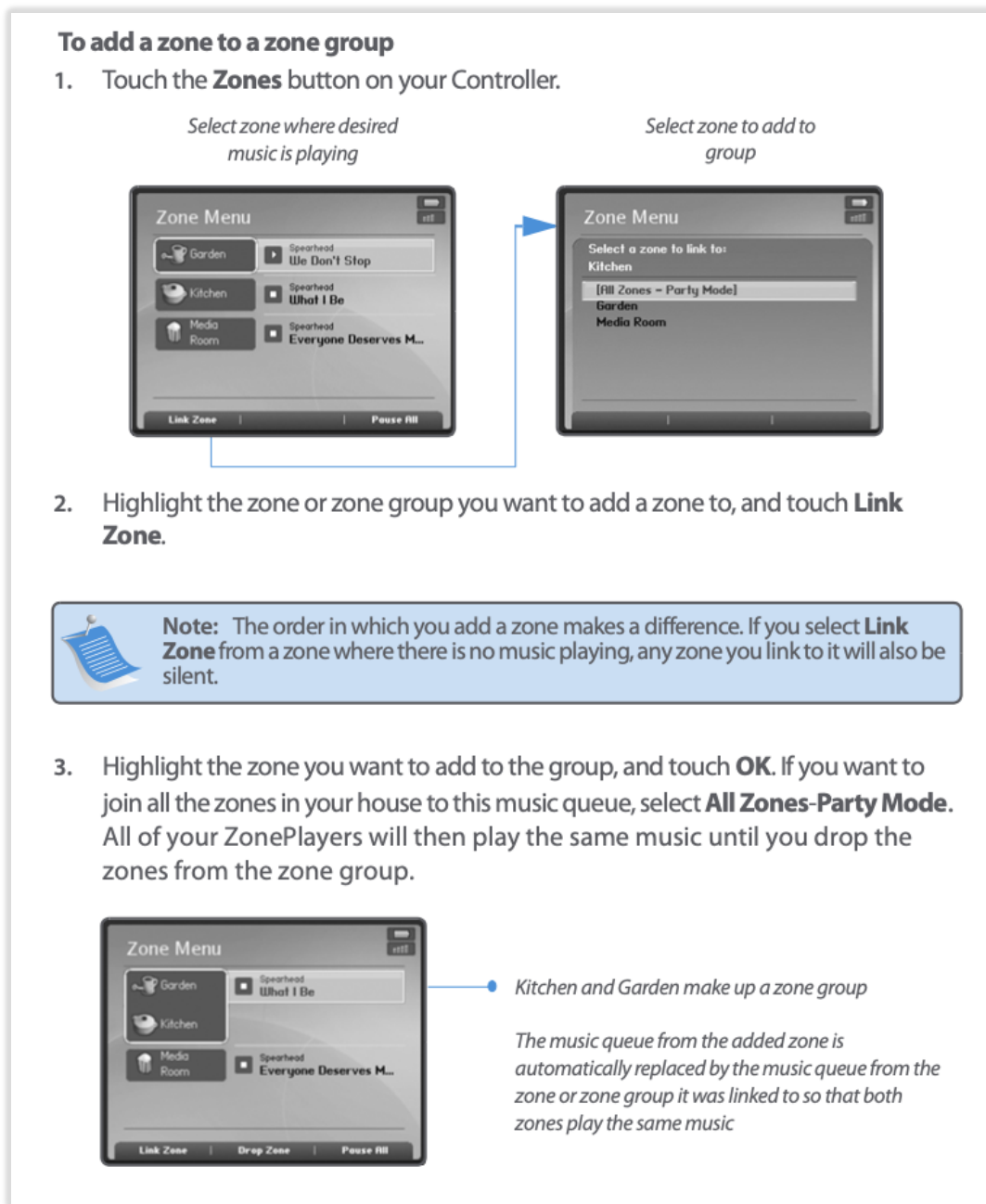
3. Select a zone to add to the group, and click **OK**. If you want to join all the zones in your house to this music queue, select **All Zones-Party Mode**. All of your ZonePlayers will then play the same music until you drop the zones from the zone group.



Note: The order in which you add a zone makes a difference. If you select **Link Zone** from a zone where there is no music playing, any zone you link to it will also be silent.

Id. at 3-12.

505. The Sonos 2005 User Guide also includes a similar “Zone groups” section in the chapter on the Sonos CR100 Controller, as shown below:



Id. at 5-9.

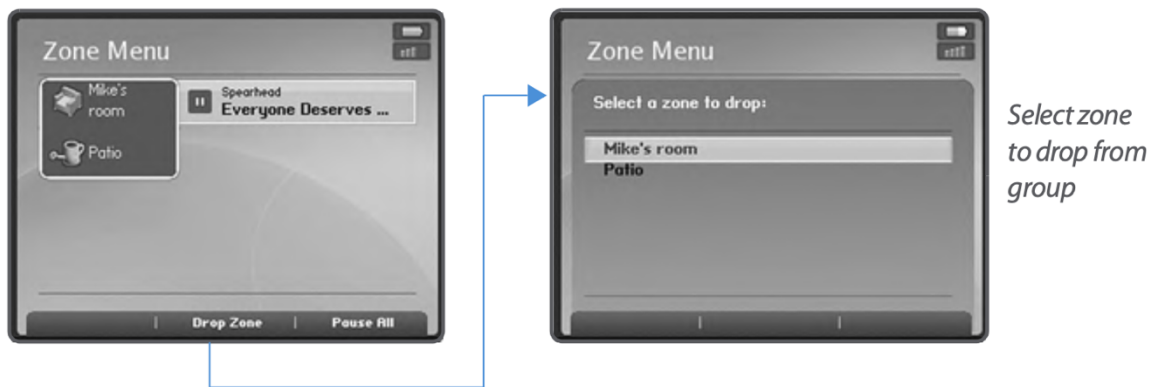
506. As demonstrated by the above excerpts from the Sonos 2005 User Guide, a user could create a new “zone group” using a Sonos controller by selecting a specific set of ZonePlayers (logically identified as zones) in a Sonos system to group together into the “zone group,” such as a Kitchen + Jack’s Bedroom group or a Garden + Kitchen group, and the act of creating this new

“zone group” would then “*cause all the zones in the zone group to play the same music.*” *Id.* at 3-11. Additionally, the Sonos 2005 User Guide notes that “[a]ny zones you link [into a zone group] will automatically drop their current music queue and begin to play the music queue from the highlighted zone,” and that if “there is no music playing” in the highlighted zone, then “any zone you link to it will also be silent.” *Id.* at 3-12, 5-8, 5-9.

507. The 2005 User Guide also explains that once a new “zone group” is formed and thereby activated, all of the ZonePlayers in the “zone group” “will then play the same music until you drop the zones from the zone group.” *Id.* at 5-9. The 2005 User Guide then goes on to describe the process “[t]o drop a room from your zone group” as follows:

To drop a room from your zone group

1. Touch the **Zones** button on your Controller.



2. Use the scroll wheel to highlight the zone group you want to change, and touch **Drop Zone**.
3. Highlight the zone you want to drop from the group, and touch **OK**. The room that's removed from the zone group stops playing music. The other zones in the zone group continue unaffected.

508. As demonstrated by the above excerpt from the Sonos 2005 User Guide, once a ZonePlayer is removed from a “zone group,” that ZonePlayer “stops playing music” in accordance with the “zone group” while “[t]he other zones in the zone group continue unaffected.” *Id.* at 5-10.

1 509. Based on the foregoing description, it is clear that a “zone group” created in this
2 manner only existed temporarily during the limited time that the group was activated for playback,
3 and as soon as a user wanted to use a ZonePlayer in an existing group for individual playback or
4 wanted to create a new group that included one or more of the ZonePlayers in the existing group,
5 the existing group would need to be destroyed by removing the one or more ZonePlayers that the
6 user wanted to use for individual playback or wanted to include in a new “zone group.” 7/19/2022
7 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr. Lambourne. As a result, the only
8 way a user could use a group having that same group membership again in the future was by re-
9 creating a new temporary group that included the same members as the previously-existing group.
10 *Id.* And as explained above, such a temporary, ad-hoc group that was automatically activated at
11 the time of creation and then only remained in existence during the limited time it was activated is
12 distinctly different from a “zone scene,” which requires a user-customized, pre-saved group of
13 “zone players” that is able to exist in an inactive state while remaining available for selection by a
14 user so that it can later be invoked on demand for synchronous playback.

15 510. Indeed, as an initial matter, a “zone group” of ZonePlayers was not a pre-saved
16 group that was available to be *later invoked on demand* for synchronous playback at some time
17 after the creation of the “zone group,” which is a fundamental requirement of the claimed “zone
18 scenes.” *Id.* To the contrary, a “zone group” of ZonePlayers was a temporary, ad-hoc group that
19 was automatically activated at the time it was created and then only remained in existence until
20 the time that the “zone group” was deactivated, at which time the “zone group” would be
21 automatically destroyed such that the “zone group” was not available to be *later invoked on*
22 *demand* for synchronous playback. *Id.*

23 511. Further, a “zone group” of ZonePlayers was not a pre-saved group that was *able to*
24 *exist in an inactive state* in which the pre-saved group was available for selection by a user but the
25 “zone players” in the pre-saved group could still be used for individual audio playback (or as part
26 of another group), which is another fundamental requirement of the claimed “zone scenes.” *Id.*
27 To the contrary, a “zone group” of ZonePlayers was only able to exist in an active state during
28 which time it was not possible for a user to use any of the ZonePlayers added to the “zone group”

1 for individual audio playback, and once a “zone group” was deactivated, it would be automatically
2 destroyed such that it was no longer available for selection by a user. *Id.*

3 512. Further yet, a “zone group” of ZonePlayers was not capable of having a group
4 member that was also a member of a different “zone group” available for selection by a user, which
5 is another requirement of the claimed “zone scenes.” *Id.* To the contrary, a ZonePlayer could only
6 be a member of one “zone group” that was in existence at any given time, and the only way a
7 ZonePlayer in a first “zone group” could have been added to a second “zone group” was to destroy
8 the first “zone group.” *Id.*

9 513. Lastly, there was no ability for a user to assign a thematic name to a “zone group,”
10 which fails to meet the additional “according to a common theme” requirement of Google's
11 proposed construction of a “zone scene,” as interpreted by the Court. *Id.*

12 514. Thus, for at least these reasons, it is my opinion that a “zone group” created by
13 selecting a specific set of ZonePlayers in a Sonos system to group together into the “zone group”
14 in an ad-hoc manner does not constitute a “zone scene.”

15 515. As demonstrated by the above excerpts from the Sonos 2005 User Guide, a user
16 could also create a new “zone group” by selecting the “All Zones-Party Mode” option, which
17 would then cause all of the ZonePlayers in a Sonos system to “play the same music until you drop
18 the zones from the zone group.” Sonos 2005 User Guide (Lambourne Dep. Exs. 1077-1078), at
19 3-12, 5-9. This “All Zones-Party Mode” option, which was hard-coded into the Sonos Desktop
20 Controller software and the Sonos CR100 Controller firmware, provided an alternative way for a
21 user to create a new “zone group” including all ZonePlayers in a Sonos system that avoided the
22 need for the user to select each of the group members one at a time during the process of creating
23 the “zone group.” 7/19/2022 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr.
24 Lambourne.

25 516. However, because the “All Zones-Party Mode” option was hard-coded into the
26 Sonos Desktop Controller software and the Sonos CR100 Controller firmware, it was not a user-
27 created, customized group that was predefined and pre-saved at a user’s request as part of an initial
28 “setup” phase, which is a required aspect of the claimed “zone scenes.” *See* Case No. 20-6754,

D.I. 309 at 4 (the Court finding that Sonos's patented "zone scene" technology "'allows a *user* to *customize and save* multiple groups of smart speakers or other players . . . and then later 'activate a *customized* group, called a 'zone scene,' on demand), 8 (the Court noting that the "basic purpose of the invention . . . is to allow *users to pre-save customized speaker groups* and later 'invoke' the named group on demand"), 12 (the Court finding that "[t]he *claimed ability to customize and save overlapping speaker groups* and easily control group playback represents a clear technological improvement over the 'conventional multi-zone audio system,' which, as the specification explained, presents significant technological and physical obstacles to forming speaker groups").

517. Further, because the "All Zones-Party Mode" option was hard-coded into the Sonos Desktop Controller software and the Sonos CR100 Controller firmware – and thus was not a user-created, customized group that was predefined and pre-saved at a user's request as part of an initial "setup" phase – the "All Zones-Party Mode" option of Sonos's 2005 system also fails to meet several other limitations of Asserted Claim 1 of the '966 Patent. For instance, a Sonos controller in a Sonos system never received "a request to create" the "All Zones-Party Mode" option, never "caus[ed] creation of" the "All Zones-Party Mode" option, never "caus[ed] an indication of" the "All Zones-Party Mode" option to be transmitted to a ZonePlayer based on a "request to create" that option, and never "caus[ed] storage of" the "All Zones-Party Mode" option based on a "request to create" that option. 7/19/2022 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr. Lambourne.

518. Further yet, there was no ability for a user to assign a thematic name to the "All Zones-Party Mode" option, which fails to meet the additional "according to a common theme" requirement of Google's proposed construction of a "zone scene," as interpreted by the Court. 7/19/2022 Discussion with Mr. Millington; 1/9/2023 Discussion with Mr. Lambourne.

519. Thus, for at least these reasons, it is my opinion that the "All Zones-Party Mode" option provided by Sonos's 2005 system was merely just a different way to create an ad-hoc "zone group," and also does not constitute a "zone scene." *See also* SONOS-SVG2-00026839-58 at SONOS-SVG2-00026840 (explaining that the "Zone Scene feature" is "similar to the current Party Mode setting that is available" but that "*the Zone Scenes feature is much more flexible and*

1 *powerful*”).

2 520. I further note that the Sonos 2005 User Guide never uses the term “zone scenes” or
3 otherwise describes any technology that would have enabled a user to create a user-customized,
4 pre-saved group of ZonePlayers that was able to exist in an inactive state while remaining available
5 for selection by a user so that it could later be invoked on demand for synchronous playback, which
6 further confirms that the Sonos controllers in Sonos’s 2005 system did not have any functional
7 capability for creating or invoking a “zone scene.”

8 521. I have also seen various other Sonos documents confirming that Sonos controllers
9 in Sonos’s 2005 system did not have any functional capability for creating or invoking a “zone
10 scene.” As one example, in an April 2005 email chain between Sonos employees Rob Lambourne
11 (inventor of the ‘885 and ‘966 Patent) and Andrew Schulert, Mr. Schulert notes that “one of the
12 problems with our system is we don’t have a way of permanently linking zones together.”
13 SONOS-SVG2-00026888. In response, Mr. Lambourne proposes a feature that would “[a]llow a
14 user to save Zone Profiles” that “would allow a user . . . to put their Zones into predefined
15 groups...” *Id.* Mr. Schulert’s comments noting that the current Sonos system does not have a way
16 to create “permanent” groups and Mr. Lambourne’s proposal to add a “predefined groups” feature
17 in April 2005 further confirms to me that Sonos controllers in Sonos’s system at this time did not
18 have any functional capability for creating or invoking a “zone scene.”

19 522. As another example, entries in Mr. Lambourne’s notebook dated October-
20 November 2005 memorialize his ongoing work on the “zone scene” concept at this time, which
21 further confirms that Sonos controllers in Sonos’s 2005 system did not have any functional
22 capability for creating or invoking a “zone scene.” SONOS-SVG2-00026625 at 648 (showing Mr.
23 Lambourne’s work on “permanent groupings?” and “group profiles”); *id.* at 653 (showing Mr.
24 Lambourne’s work on “Perma Groups”); *id.* at 666 (showing Mr. Lambourne’s work on “Room
25 Configurations” including “Morning Mode” and “Working Mode”); *id.* at 668 (showing Mr.
26 Lambourne’s work on a proposal for how ZonePlayers might be selected for including in a “Zone
27 groupings/Macro”).

28 523. As another example, in an email exchange dated July 6, 2006, Mr. Schulert asks

1 Mr. Lambourne if he “ha[s] a list of small ‘nice-to-have’ feature requests,” to which Mr.
2 Lambourne responds with a list of features that did not exist in the then-current Sonos system but
3 were requested, including noting that “there are some biggies like “Zone Scenes.” SONOS-SVG2-
4 00026916. That Mr. Lambourne was referring to “zone scenes” as a requested feature in July 2006
5 further confirms that Sonos controllers in Sonos’s system through this time period, including 2005,
6 did not have any functional capability for creating or invoking a “zone scene.”

7 524. Additionally, I have reviewed the “v1.2-gold” snapshot of Sonos’s source code that
8 Dr. Schonfeld appears to be relying on in his Opening Report, which I understand to be from July
9 2005, and I did not see any source code modules that provided “zone scenes” capability, which
10 also supports my opinion that Sonos controllers in Sonos’s 2005 system did not have any
11 functional capability for creating or invoking a “zone scene.”

12 525. For completeness, I further note that the evidence summarized above likewise
13 establishes that the ZonePlayers in Sonos’s 2005 system did not have any functional capability to
14 be added to a “zone scene” that was created at the request of a user or to operate in accordance
15 with “zone scene” that was invoked at the request of a user. Rather, the ZonePlayers in Sonos’s
16 2005 system were only capable of being added to and operating in accordance with a temporary,
17 ad-hoc “zone group,” which was not a “zone scene” for all of the reasons explained above.

18 526. Lastly, as noted above, my opinion that the Sonos controllers and ZonePlayers in
19 Sonos’s 2005 system did not have the “zone scenes” capability that is described and claimed in
20 the ’966 Patent is supported by conversations I have had with Nick Millington and Rob
21 Lambourne, who confirmed that the Sonos controllers and ZonePlayers in Sonos’s 2005 system
22 did not have the “zone scenes” capability that is described and claimed in the ’966 Patent. I
23 understand that both Mr. Millington and Mr. Lambourne have been Sonos employees since 2003,
24 and during the 2005-06 timeframe, Mr. Millington and Mr. Lambourne were heavily involved in
25 designing and developing the technology that was being practiced by Sonos’s system as it existed
26 in 2005.

27 527. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers
28 in Sonos’s 2005 system did not have any “zone scene” capability, Dr. Schonfeld nevertheless

1 opines that the “zone scene” limitations required by the Asserted Claims of the ’966 Patent were
2 either disclosed or rendered obvious by the Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶
3 971-1000. However, I find Dr. Schonfeld’s opinions regarding Sonos’s 2005 system and the “zone
4 scene” limitations of the Asserted Claims of the ’966 Patent to be flawed for several reasons.

5 528. As an initial matter, Dr. Schonfeld fails to set forth any basis or reasoning for his
6 opinions regarding Sonos’s 2005 system and the “zone scene” limitations of the Asserted Claims
7 of the ’966 Patent. Instead, Dr. Schonfeld merely refers back to his discussion of certain claim
8 limitations of Asserted Claim 1 of the ’885 Patent and makes the following conclusory statement:

9 971. *See supra* ‘885 claim 1 Limitation 1.6. Included in my incorporation by reference
10 is my discussion of the “first zone scene” disclosure in, e.g., 1.6 I include in my incorporation by
11 reference the discussion of the creation of the first zone scene, its composition, its synchronous
12 playback configuration, and the ability of invocation of that zone scene.

13 However, the Asserted Claims of the ‘966 Patent are directed to a different type of device than
14 Asserted Claim 1 of the ’885 Patent (a “computing device” configured to “serv[e] as a controller”
15 as opposed to a “zone player”), the Asserted Claims of the ‘966 Patent use different claim language
16 than Asserted Claim 1 of the ’885 Patent, and Dr. Schonfeld fails to provide any further explanation
17 as to how his prior discussion of Sonos’s 2005 system in the context of the “zone scene” limitations
18 of Asserted Claim 1 of the ‘885 Patent applies to the “zone scene” limitations of the Asserted
19 Claims of the ‘966 Patent. In fact, Dr. Schonfeld fails to even state whether his opinion is that the
20 “zone scene” limitations of the Asserted Claims of the ‘966 Patent were actually *disclosed* by
21 Sonos’s 2005 system versus whether his opinion is that the “zone scene” limitations of the Asserted
22 Claims of the ‘966 Patent were only *rendered obvious* by the Sonos’s 2005 system. For these
23 reasons, I disagree that Dr. Schonfeld’s barebones discussion of the “zone scene” limitations of
24 the ’966 Patent amounts to a detailed and complete statement of all opinions to be expressed and
25 the basis and reasons therefor, which I understand to be the governing standard for expert reports,
26 and that barebones discussion has prejudiced my ability to fully discern, assess, and respond to his
27
28

1 opinions regarding the “zone scene” limitations of the Asserted Claims of the ’966 Patent.¹⁷

2 529. Moreover, I have reviewed the section of Dr. Schonfeld’s Opening Report where
3 he discusses Sonos’s 2005 system in the context of claim limitation 1.6 of Asserted Claim 1 of the
4 ’885 Patent, and nothing in that section of Dr. Schonfeld’s Opening Report alters my opinion that
5 Sonos’s 2005 system did not include the “zone scenes” capability required by the Asserted Claims
6 of the ’966 Patent.

7 530. Indeed, Dr. Schonfeld’s theories and opinions regarding the alleged existence of
8 “zone scenes” capability in Sonos’s 2005 system are all premised on Dr. Schonfeld’s incorrect
9 interpretation of what is required to qualify a “zone scene,” which I previously discussed above,
10 and are also premised on several inaccurate and misleading characterizations of Sonos’s 2005
11 system functionality and the evidence related thereto.

12 531. For instance, at paragraph 338 of his Opening Report, Dr. Schonfeld states as
13 follows:

14 The Sonos System allows a user to add a speaker to a group and send an indication
15 of that addition. A user may, for example, use the desktop controller software to
16 “link” zone players together to create a “zone scene,” under Sonos’s understanding
17 of that term. Below, the example of “linking” the Kitchen Zone Player with the
“Jack’s room” Zone Player is described. Another example of linking “Kitchen”
with “[All Zones – Party Mode]” is also given.

18 Schonfeld Op. Report at ¶ 338 (citing to the Sonos 2005 User Guide at 3-12); *see also id.* at ¶ 336
19 (stating that “[t]he ‘zone scene’ may be a group of speakers either defined by the user or predefined
20 by the system, such as ‘Kitchen,’ ‘Dining Room,’ ‘Party Mode,’ etc.”), ¶ 345 (stating that “Sonos’s
21 own prior art system discloses “zone scenes” because it allowed a user to group zones together
22 ‘with any other zone’ to form a zone group.”) (citing to the Sonos 2005 User Guide at 5-9), ¶¶
23 346-348 (citing SONOS-SVG2-00227363-399; SONOS-SVG2-00227400-406; SONOS-SVG2-
24 00227407-413; SONOS-SVG2-00227414; SONOS-SVG2-00227415-417; SONOS-SVG2-
25 00227422; SONOS-SVG2-00227427-429; SONOS-SVG2-00227437-438). However, this theory
26 is based exclusively on the “Zone groups” section of the Sonos 2005 User Guide that I already

27 ¹⁷ To the extent that Dr. Schonfeld later attempts to and is permitted to address these deficiencies
28 in his Opening Report, I expressly reserve my right to respond.

1 summarized above, and as I explained there, the ad-hoc “zone groups” that could be created in
2 Sonos’s 2005 system were not “zone scenes” because they were not user-customized, pre-saved
3 groups of “zone players” that were able to exist in an inactive state while remaining available for
4 selection by a user so that they could be later invoked on demand for synchronous playback.

5 532. Turning to paragraph 340 of his Opening Report, Dr. Schonfeld states as follows:

6 Zone Players and therefore groups of Zone Players may be named or renamed per
7 the user’s preference. Other groups such as “Party Mode” are preconfigured and
8 also available to a user. The claims do not require the “zone scenes” to be “user
selected.” Predefined groups, such as the “party mode” in the Sonos System,
therefore meet this claim limitation.

9 Schonfeld Op. Report at ¶ 340 (citing to the Sonos 2005 User Guide at 5-23); *see also id.* at ¶ 349
10 (stating that “[t]he user could also name individual speakers (zone players), in turn naming the
11 zone groups” and that “[t]he previously-saved and named group, for example “Jack’s room +
12 Kitchen” in the example below, can also be modified by removing Zone Players from the group”)
13 (citing to the Sonos 2005 User Guide at 3-13), ¶ 350 (stating that “Zone Players and therefore
14 groups of Zone Players may be named or renamed in accordance with the user’s preference” and
15 that “while a user may potentially name the zone scene with a ‘non-thematic’ name, the Court has
16 held that the capability to so name the zone scene is sufficient to meet the language of the claim”)
17 (citing to the Sonos 2005 User Guide at 5-23), ¶ 351 (stating that “[o]ther groups such as ‘Party
18 Mode’ are preconfigured and also available to the user”) (citing to the Sonos 2005 User Guide at
19 3-12), ¶ 352 (stating that “[u]nder the Court’s Order, ‘Party Mode’ is a speaker group with a
20 thematic name, which satisfies the claim ‘zone scene’ elements under the Court’s Order”).
21 However, this theory is flawed for several reasons.

22 533. First, Dr. Schonfeld’s statement that “groups of Zone Players may be named or
23 renamed per the user’s preference” is misleading and inaccurate. In reality, Sonos’s 2005 system
24 only provided users with the capability to assign names to individual ZonePlayers, not to “zone
25 groups.”

26 534. Second, while it is not clear, Dr. Schonfeld appears to be suggesting here that if a
27 group of “zone players” could be named by a user, this would satisfy the requirements of a “zone
28

1 scene.” I disagree – this suggestion ignores all of other key characteristics of a “zone scene.” In
2 particular, as I explained above, a “zone scene” requires a user-customized, pre-saved group of
3 “zone players” that is able to exist in an inactive state while remaining available for selection by a
4 user so that it can later be invoked on demand for synchronous playback. Thus, even if Sonos’s
5 2005 system did provide a user with the capability to name a “zone group” after it has been created,
6 this naming capability would not transform the “zone group” into a “zone scene.”

7 535. Third, while it is not clear, Dr. Schonfeld also appears to be suggesting here that if
8 a group of “zone players” is “preconfigured and also available to a user,” this would satisfy the
9 requirements of a “zone scene.” Again, I disagree – a “zone scene” does not just require a
10 “preconfigured” group that is “available to a user,” it requires a group of “zone players” that that
11 is customized and pre-saved by a user during an initial “setup” phase that is carried out using a
12 controller device . *See* D.I. 309 at 4-5, 8, 12, 13, 16. Thus, even accepting Dr. Schonfeld’s
13 characterization that the “All Zones-Party Mode” option provided by Sonos’s 2005 system was a
14 “preconfigured” group that was “available to a user,” this does not satisfy the requirements of a
15 “zone scene.”

16 536. Fourth, Dr. Schonfeld’s statement that “[t]he claims do not require the zone scene
17 to be ‘user selected’” is incorrect. *See* Schonfeld Op. Report at ¶ 340. As an initial matter, this
18 statement appears in Dr. Schonfeld’s analysis of Asserted Claim 1 of the ’885 Patent and it is not
19 clear whether Dr. Schonfeld intends for this statement to be applicable to the Asserted Claims of
20 the ’966 Patent, which highlights the problems with Dr. Schonfeld’s failure to separately analyze
21 the Asserted Claims of the ’966 Patent. Moreover, this statement is contrary to the Court’s
22 repeated acknowledgment that a “zone scene” constitutes a group that is “customized” and “pre-
23 save[d]” by a “user,” as well as the requirement of Asserted Claim 1 of the ’966 Patent that a “zone
24 scene” is created based on a “request to create a ... zone scene” that is received by the “computing
25 device” while it is “serving as a controller” – which a POSITA would understand to be a *user*
26 request.

27 537. Fifth, Dr. Schonfeld’s statement that “[o]ther groups such as ‘Party Mode’ are
28 preconfigured and also available to a user” appears to suggest that there were multiple different

1 “preconfigured” groups available for selection in Sonos’s 2005 system, which is not correct. The
2 only group option available in Sonos’s 2005 system that could even possibly be characterized as a
3 “preconfigured” group was the “All Zones-Party Mode” option that was hard-coded into the Sonos
4 Desktop Controller software and the Sonos CR100 Controller firmware. However, this hard-coded
5 “All Zones-Party Mode” option merely provided a different way to create a “zone group,” and
6 does not meet the requirements of a “zone scene” for the reasons I have already explained above.

7 538. Turning next to paragraph 343 of his Opening Report, Dr. Schonfeld states as
8 follows:

9 Sonos has also provided documentation showing that “zone scenes” were included
10 in the Sonos System. For example, Mr. Lambourne testified that “party mode” was
11 a “zone scene.” Lambourne Dep. Tr. at 63:8-13 (“Q. The Party Mode setting is a
12 Zone Scene; right? THE WITNESS: Yeah. I think I describe a Party Mode as an
13 example of a Zone Scene that can be set up, created.”) (objection omitted); 48:13-
14 22 (“Q. Below the macros, in parenthesis, room configurations, there’s a box with
15 three entries. One says “party mode,” one says “morning mode,” and the final says
16 “working mode.” Do you see that? A Yes. Q. Were those examples of zone scenes?
17 A Yes. Q. How do you know? A. Because I designed it.”).

18 Schonfeld Op. Report at ¶ 343 (also citing to Lambourne Dep. Ex. 1097 at 42). However, this this
19 theory is premised on a misleading and inaccurate characterization of Mr. Lambourne’s testimony
20 and documents.

21 539. Contrary to the Dr. Schonfeld’s statement, the “Party Mode” that Mr. Lambourne
22 was describing here in this cited deposition testimony was not the same thing as the “All Zones-
23 Party Mode” option that was hard-coded into the Sonos Desktop Controller software and the Sonos
24 CR100 Controller firmware in Sonos’s 2005 system. Rather, what Mr. Lambourne was describing
25 in this cited deposition testimony was a “zone scene” named “Party Mode” comprising a group
26 that was customized and pre-saved by a user during an initial “setup” phase carried out using a
27 Sonos controller. In fact, Mr. Lambourne specifically noted this distinction on several occasions
28 during his deposition, but for some reason Dr. Schonfeld choose not to mention this in his report.
See, e.g., 6/6/2022 R. Lambourne Dep. Tr. at 62:13-63:13, 66:20-68:4, 74:21-75:5. In any event,
this distinction is critical – while Sonos’s 2005 system did provide a user with an “All Zones-Party
Mode” option that was hard-coded into the Sonos Desktop Controller software and Sonos CR100

1 Controller firmware, the Sonos's 2005 system did not include the later-developed "zone scene"
2 technology that would have provided a user with the ability to use a controller device to create a
3 "zone scene" named "Party Mode" comprising a user-customized, pre-saved group of "zone
4 players" that were added by the user via the controller device, which was designed to be a "much
5 more flexible and powerful" feature than the hard-coded "All Zones-Party Mode" option. *See*
6 SONOS-SVG2-00026839-58 at SONOS-SVG2-00026840.

7 540. Along similar lines, the lone document that Dr. Schonfeld cites in support of this
8 paragraph is a single page out of Mr. Lambourne's sketchbook where he had sketched out how a
9 user could use the "zone scenes" technology he had begun to design to create a "zone scene" named
10 "Party Mode," but again, this user-customized "zone scene" named "Party Mode" was distinctly
11 different from the "All Zones-Party Mode" option that was hard-coded into the Sonos Desktop
12 Controller software and the Sonos CR100 Controller firmware in Sonos's 2005 system. *See*
13 SONOS-SVG2-00026625-751 at SONOS-SVG2-00026666.

14 541. Turning next to paragraph 344 of his Opening Report, Dr. Schonfeld states as
15 follows:

16 Sonos has also argued at times that a group must either be saved or named for a
17 group to be considered a zone scene. As described above, however, groups that the
18 user creates and groups that the Sonos System creates, such as Party Mode, are
19 saved. A user can, for example, play to a particular group, pause or stop playback
20 to that group, and restart or play new music to that group later. Party Mode is
21 another group that is constantly accessible to the user. And a user may name Zone
22 Players, which when grouped together take on a concatenated name. As such, a user
23 can create a group with a particular name. Each of these features are discussed
24 *supra* e.g., Section X.

25 Schonfeld Op. Report at ¶ 344. However, this theory is flawed for several reasons.

26 542. First, as in paragraph 344 of his Opening Report, Dr. Schonfeld appears to be
27 suggesting here that if a group of "zone players" could be named by a user, this would satisfy the
28 requirements of a "zone scene." I disagree for the reasons I already explained above.

543. Second, Dr. Schonfeld's appears to be suggesting here that an ad-hoc "zone group"
of ZonePlayer on Sonos's 2005 system was "saved" in the same way that a "zone scene" is saved.
Again, I disagree. As I explained above, a "zone scene" comprises a predefined group of "zone

1 players” that is saved at a user’s request in a *persistent* manner that is not dependent on the
2 activation state of the group so that it remains in existence and is available for selection by a user
3 even during times when the group is in an inactive state, which is what enables the group to be
4 later invoked on demand for synchronous playback. The ad-hoc “zone groups” in Sonos’s 2005
5 system were not saved in this way. Rather, those ad-hoc “zone groups” were only saved
6 temporarily during the limited time that the “zone groups” were activated, and the “All Zones-
7 Party Mode” option was hard-coded into the Sonos Desktop Controller software and the Sonos
8 CR100 Controller firmware rather than being saved at a user’s request as part of an initial “setup”
9 phase.

10 544. Third, Dr. Schonfeld’s appears to be suggesting here that because the “All Zones-
11 Party Mode” option was “constantly accessible to the user,” this satisfies the requirements of a
12 “zone scene.” Yet again, I disagree – this just appears to be a different way to say that the “All
13 Zones-Party Mode” option was hard-coded into the Sonos Desktop Controller software and the
14 Sonos CR100 Controller firmware, and for all of the reasons I have previously explained, a hard-
15 coded option for creating an ad-hoc group does not meet the requirements of a “zone scene.”

16 545. Turning next to paragraphs 345-352 of his Opening Report, Dr. Schonfeld largely
17 just repackages and/or repeats the same talking points regarding the ad-hoc “zone groups” and the
18 “All Zones-Party Mode” option of Sonos’s 2005 system, which rely on Dr. Schonfeld’s incorrect
19 interpretation of what is required to qualify as a “zone scene” as well as his inaccurate and
20 misleading characterizations of Sonos’s 2005 system functionality and thus fail for all of the
21 reasons that I have already explained.

22 546. Turning lastly to paragraphs 353-357 of his Opening Report, Dr. Schonfeld
23 describes and cites to various source code that was involved in the process for forming an ad-hoc
24 “zone group” in Sonos’s 2005 system. *See* Schonfeld Op. Report at ¶¶ 353-357. However, an ad-
25 hoc “zone group” is not a “zone scene” for all of the reasons I explained above, and the cited
26 source code does not otherwise encode any functional capability for creating or invoking a “zone
27 scene,” which is not surprising given all of the other evidence showing that Sonos’s 2005 system
28 did not include any “zone scenes” capability. .

1 547. Turning to the additional requirement 966 that the claimed “computing device” be
2 programmed with functional capability for causing the creation of two overlapping “zone scenes”
3 that co-exist with one another and are both available for selection by a user at the same time, while
4 it is not entirely clear, Dr. Schonfeld appears to be offering an opinion that Sonos’s 2005 system
5 met this requirement as well.

6 548. For instance, at paragraphs 374-380, Dr. Schonfeld appears to be offering an
7 opinion that Sonos’s 2005 system met this requirement based on the fact that a user could remove
8 a ZonePlayer from a first “zone group” and then add the ZonePlayer to a second “zone group.” I
9 disagree. In addition to the fact that these “zone groups” are not the claimed “zone scenes” for the
10 reasons I explained above, this scenario also does not meet the additional requirement that there
11 be two overlapping groups that co-exist with one another and are both available for selection by a
12 user at the same time. *See* Schonfeld Op. Report at ¶¶ 374-380. To the contrary, the two “zone
13 groups” in this scenario would have never existed at the same time – they would have been
14 mutually exclusive of one another.

15 549. At paragraphs 374-380, Dr. Schonfeld also appears to be offering an opinion that
16 Sonos’s 2005 system met this requirement based on the fact that a user could add a ZonePlayer to
17 a “zone group” while the hard-coded “Party Mode-All Zones” option was available to a user. *See*
18 Schonfeld Op. Report at ¶¶ 374-380. Again, I disagree – neither this “zone group” nor the hard-
19 coded “Party Mode-All Zones” option amounts to a “zone scene” for the reasons I explained above.

20 550. At paragraph 381, Dr. Schonfeld also states as follows:
21 Sonos allows users to wire speakers to the Zone Players in multiple configurations
22 due to the wiring options included with each Zone Player. Accordingly, any Zone
23 Player may be connected to speakers in the same room, different rooms, or even
24 speakers connected to different Zone Players, allowing for freedom for the user to
25 create multi-room and overlapping speaker setups, as Sonos encouraged above.
26 Schonfeld Op. Report at ¶ 381. However, I fail to see how this alleged capability to physically
27 “wire speakers to the Zone Players in multiple configurations due to the wiring options included
28 with each Zone Player” has anything to do with the “zone scene” technology that is described
 and claimed in the ’966 Patent.

1 551. Thus, nothing in Dr. Schonfeld's Opening Report alters my opinion that the Sonos
2 controllers in Sonos's 2005 system did not have any functional capability for creating or invoking
3 a "zone scene" – let alone the '966 required functional capability to cause the creation of two
4 different, overlapping "zone scenes" that are both available for selection by a user and then later
5 cause selected one of the two different "zone scenes" to be invoked.

6 **ii. Sonos's 2005 System Did Not Meet Limitations 1.4 / 1.5**

7 552. When read together, limitations 1.4 and 1.5 of Asserted Claim 1 of the '966 Patent
8 require the "computing device" to be encoded with executable "program instructions" that cause
9 the computing device to perform the following function(s):

10 **[1.4]** while serving as a controller for a networked media playback system comprising a
11 first zone player and at least two other zone players, wherein the first zone player is
12 operating in a standalone mode in which the first zone player is configured to play back
media individually:

13 **[1.5]** receiving a first request to create a first zone scene comprising a first
14 predefined grouping of zone players including at least the first zone player and a
15 second zone player that are to be configured for synchronous playback of media
when the first zone scene is invoked;

16 553. In my opinion, Sonos's 2005 system did not meet this requirement.

17 554. As explained above, the evidence I have reviewed establishes that the Sonos
18 controllers in Sonos's 2005 system were only capable of receiving requests to form ad-hoc "zone
19 groups," which are not the claimed "zone scenes" for the reasons explained above. Thus, for this
20 reason, the Sonos controllers in Sonos's 2005 system did not have the required functional
21 capability to "receiv[e] a *first request to create a first zone scene* comprising a first predefined
22 grouping of [ZonePlayers] including at least the first [ZonePlayer] and a second [ZonePlayer] that
23 are to be configured for synchronous playback of media when the first zone scene is invoked."

24 555. Moreover, the hard-coded "All Zones-Party Mode" option of Sonos's 2005 system
25 that is relied upon by Dr. Schonfeld fails to meet these limitations for the additional reason that a
26 Sonos controller would have never received any "request to create" the hard-coded "All Zones-
27 Party Mode" option.

28 556. Despite this clear evidence establishing that the Sonos controllers and ZonePlayers

1 926. In Dr. Schonfeld's Opening Report, he fails to set forth any analysis of Squeezebox
2 the in connection with Asserted Claim 1 of the '966 Patent, and instead merely cites back to certain
3 aspects of his analysis of Squeezebox in the context of Asserted Claim 1 of the '885 Patent.
4 Schonfeld Op. Report at ¶¶ 1000-1033. Thus, Dr. Schonfeld fails to articulate what he considers
5 to be the "computing device," the "zone players," and the "networked media playback system" of
6 Asserted Claim 1 of the '966 Patent in his "Squeezebox" reference.

7 927. In Dr. Schonfeld's analysis of the "Squeezebox" reference in connection with
8 Asserted Claim 1 of the '885 Patent, he mapped the "network device" of Asserted Claim 1 of the
9 '885 Patent to a computer installed with SlimServer software and mapped the "zone players" of
10 Asserted Claim 1 of the '885 Patent to Squeezebox or Softsqueeze players. *See* Schonfeld Op.
11 Report at ¶¶ 468, 489-490, 521. Based on this mapping, I have assumed for purposes of my
12 discussion below that Dr. Schonfeld is mapping (i) the "computing device" of Asserted Claim 1
13 of the '966 Patent to a computer installed with SlimServer software, (ii) the "zone players" of the
14 '966 Patent to physical Squeezebox players and software-based SoftSqueeze players, which I will
15 collectively refer to as "Squeezebox players" for simplicity, and (iii) the "networked media
16 playback system" of Asserted Claim 1 of the '966 Patent to a system comprising a computer
17 installed with the SlimServer software and Squeezebox players, which I will refer as a
18 "Squeezebox system." However, to the extent Dr. Schonfeld is permitted to later provide analysis
19 and/or new opinions regarding the Asserted Claims of the '966 Patent, I reserve my right to address
20 such analysis and/or opinions in a supplemental report and/or at trial.

21 **ii. Squeezebox Did Not Have "Zone Scenes" Functionality**

22 928. Asserted Claim 1 of the '966 Patent requires a "computing device" that is
23 programmed with certain functional capability for creating and invoking a "zone scene," which is
24 a user-customized, pre-saved group of "zone players" that is able to exist in an inactive state while
25 remaining available for selection by a user so that the group can be invoked later on demand for
26 synchronous playback. And more specifically, Asserted Claim 1 of the '966 Patent requires a
27 "computing device" that is programmed with functional capability for creating multiple "zone
28 scenes" having an overlapping "zone player" and then later invoking one of the "zone scenes."

1 the '966 Patent. The new functionality is also not commercially acceptable for the same reasons
2 as already discussed.

3 To the extent Dr. Schonfeld expands on his opinions concerning NIA 1 or the new software
4 update, I reserve my right to respond

5 **XVIII. DEMONSTRATIVES**


6 1656. To help assist in my testimony at trial, I have prepared a number of demonstratives
7 that are attached hereto as **Exhibit 5**. These demonstratives are exemplary and I reserve the right
8 to create additional demonstratives and/or to modify the demonstratives in **Exhibit 5** based on the
9 material in this report. For example, I reserve the right to create additional demonstratives and/or
10 to modify the demonstratives in **Exhibit 5** based on the images I included in this report as well as
11 the evidence cited in this report. I also incorporate by reference the demonstratives I prepared for
12 my opening report.

13 1657. I have also reviewed Sonos's Technology Tutorial that provides an overview of the
14 '885 and '966 Patents, which I understand was submitted to the court in February 2022. I
15 incorporate by reference herein Sonos's Technology Tutorial and expressly reserve the right to use
16 the Technology Tutorial in whole or in part as a demonstrative to assist in my testimony.
17 Additionally, I have attached a pdf version of Sonos's Technology Tutorial hereto as **Exhibit 6**
18 and expressly reserve the right to use the images contained therein as demonstratives to assist in
19 my testimony.

20 **XIX. RESERVATION OF RIGHT**

21 1658. I reserve the right to further expound on my rebuttal opinions, including the validity
22 of the Asserted Claims of the '966 Patent, in subsequent declarations, reports, and/or at trial.

23
24
25 Dated: January 13, 2023


By: _____
Kevin C. Almeroth